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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/509,628

04/06/2005

Akira Umeda

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22850

7590

02/05/2007

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EXAMINER

FAYYAZ, NASHMIYA SAQIB

ART UNIT

PAPER NUMBER

2856

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

02/05/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/509,628

Applicant(s)

UMEDA, AKIRA

Examiner

Nashmiya S. Fayyaz

Art Unit

2856

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 34-66 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 34-66 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. ____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/23/04</u> | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 35, 41-42, 44, 46, 48-53, and 55-66 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 35, on line 11, "the projectile impact" lacks clear antecedent basis. In claim 41, reference is made to "the strain gauge" where in claims 36, 38 and 40, there are a plurality of strain gauges rendering the recitation indefinite. Also, it should be indicated what the "circumference" is of. Further, in these claims, "the plurality of strain gauges" lacks clear antecedent basis. In claim 42, which is dependent on claims 36 and 40, it has already been indicated that the plurality of gauges are at a plurality of locations in an axial direction and the whole recitation is very unclear. Further, in these claims, "the plurality of strain gauges" lacks clear antecedent basis. In claim 44, "it" on line 11 is unclear. In claims 46, 48, 49 and 52, the reference to "a strain gauge provided at a plurality of locations" is unclear as to how a single strain gauge is located at a plurality of locations, is it being moved? Claims 50 and 53 are unclear since there are already strain gauges at a plurality of locations in claims 46, 48, 49 and

52. Also, reference to "a circumference" is unclear. In claim 51, "claims" should probably be --claim--. In claim 55, on lines 3-4, "the projectile impact" lacks clear antecedent basis. In claim 56, "the projectile" on line 2 lacks clear antecedent basis. In claim 61, on the last 4, what is the difference between the projectiles being launched "independently", "simultaneously" and "at a prescribed time differential". Claim 63 is unclear since "the multiple launch tube" on line 4 lacks antecedent basis and claims 45-49 and 52 refer to a double launch tube. Also, it is unclear how "a metal ball" launches a plurality of projectiles. Claim 64 is unclear as to how a "correction function" further limits the apparatus. Also, the whole claim is not understood as to what is being claimed and what individual acceleration sensors are being referred to. Claim 65 is unclear since claims 34 to 40 only refer to a double launch tube. Claim 66 is unclear since claims 45-49 and 52 only refer to a double launch tube.

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 34-66 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly

connected, to make and/or use the invention. As in claims 34-66, indication is made that the elastic wave pulse is generated from a double launch tube by impacting both projectiles "simultaneously or at a prescribed time interval".

However, it is further indicated that the dynamic linearity is obtained by comparing the acceleration output signal with "a sum of acceleration signals obtained when two projectiles are launched separately". If the launch tube does the impacting simultaneously, how is the sum of acceleration signals obtained when it is recited that the projectiles are launched separately?

Allowable Subject Matter

5. Claims 34-66 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art cited on PTO-892 show the state of the art which lack a method or apparatus for measuring dynamic linearity of an acceleration sensor by generating an elastic wave pulse in a metal rod by impacting one of end surfaces of the metal rod with each of two round, concentrically located projectiles from a double launch tube independently, and by impacting both projectiles simultaneously or at a prescribed time interval, using an acceleration sensor provided on the other of the end surfaces of the


metal rod to measure an acceleration of the other end surface arising when the elastic wave pulse generated by the impact of the projectiles reflects at the other end surface wherein the dynamic linearity of the acceleration sensor is obtained by comparing in time domain and frequency domain an acceleration output signal of the acceleration sensor when two projectiles are impacted simultaneously or at a prescribed time interval with a sum of acceleration signals obtained when two projectiles are launched separately, measured and calculated.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nashmiya S. Fayyaz whose telephone number is 571-272-2192. The examiner can normally be reached on Mondays and Thursdays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron E. Williams can be reached on 571-272-2208. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

HEZRON WILLIAMS
SUPERVISORY PATENT EXAMINER
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Art Unit 2856

nf
1/25/07

